

Attorney's Docket No. K&A 23-0142

**APPLICATION**

**FOR UNITED STATES LETTERS PATENT**

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**SPECIFICATION**

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **GARY MARSHALL**, a citizen of  
UNITED STATES OF AMERICA, have invented a new and useful  
**SIDING INSTALLATION TOOL** of which the following is a  
specification:

## SIDING INSTALLATION TOOL

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### BACKGROUND OF THE INVENTION

#### Field of the Invention

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The present invention relates to building tools and more particularly pertains to a new siding installation tool for support pieces of siding and act as a guide to facilitate consistent alignment of the siding being installed.

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#### Description of the Prior Art

The use of building tools is known in the prior art. U.S. Patent No. 5,692,311 issued December 2, 1997 to Paquin describes a multiple piece clamp and jig apparatus that requires separate placement of the clamp and jig. Further, the clamp and jig are held together only by the clamping action of the clamp. Another type of building tool is U.S. Patent No. 780,697 issued January 24, 1905 to Adams disclosing a shingle gage and holder using a clamp having triangular teeth and a board fixedly attached to the clamp. U.S. Patent No. 4,056,889 issued November 8, 1977 to Barnett, III discloses a single elongated strip shingle alignment fixture. U.S. Patent No. 5,018,279 issued May 28, 1991 to Williams discloses another single elongated strip shingle alignment tool. U.S. Patent No. 4,183,144 issued January 15, 1980 to Barnett, III discloses still another single elongated strip shingle alignment apparatus. U.S. Patent No. 738,256 issued September 8, 1903 to Tinklepaugh

discloses a non-clamping shingle gage. U.S. Patent No. 1,192,651 issued July 25, 1916 to Leonard discloses a multiple member shingling gage system. U.S. Patent No. 4,541,217 issued September 17, 1985 to Stewart discloses a double row shingle alignment fixture. U.S. Patent No. 1,035,062 issued August 6, 1912 to Vroome discloses a line holder used for aligning shingles and marking parallel lines. U.S. Patent No. 6,470,642 issued October 29, 2002 to Eads discloses a self-sealing shingle mounting system. U.S. Patent No. 4,656,755 issued April 14, 1987 to Birnel et al. discloses a carpet banding capper. U.S. Patent No. 5,542,226 issued August 6, 1996 to Markovich discloses a roofer's grid apparatus. U.S. Patent Design No. 338,635 issued August 24, 1993 to Spindler et al. discloses an ornamental appearance for a shingle placement guide.

While these devices fulfill their respective, particular objectives and requirements, the need remains for a device that remains in one piece and can be clamped firmly onto a piece of siding to facilitate installation of the siding.

## **SUMMARY OF THE INVENTION**

The present invention meets the needs presented above by providing a siding installation tool having a clamp assembly coupled to an extendable guide assembly.

An object of the present invention is to provide a new siding installation tool that attaches firmly to an installed piece of siding and provides a guide for installation of the next overlapping piece of siding.

Another object of the present invention is to provide a new siding installation tool that locks into place yet can be easily and quickly removed as desired.

5        Still another object of the present invention is to provide a new siding installation tool that reduces the number of man hours required for installation of siding.

10       Yet another object of the present invention is to provide a new siding installation tool that makes it possible for a single person to install siding.

15       To this end, the present invention generally comprises a siding installation tool having a clamp assembly coupled to an extendable guide assembly.

20       There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

25       The objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

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## **BRIEF DESCRIPTION OF THE DRAWINGS**

The invention will be better understood and objects other than those set forth above will become apparent when consideration is  
5 given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a perspective view of a new siding installation tool according to the present invention.

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Figure 2 is a side view of the present invention in an open position.

Figure 3 is a perspective view of the present invention in use.

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## **DESCRIPTION OF THE PREFERRED EMBODIMENT**

With reference now to the drawings, and in particular to Figures 1 through 3 thereof, a new siding installation tool  
20 embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 3, the siding installation tool 10 generally comprises a clamp assembly 20 having  
25 closable jaws 22. The clamp assembly is designed for coupling to a first piece of siding 2. A guide assembly 30 is provided having a support member 32. The support member 32 has a bearing portion 34. Thus, the support member 32 is designed for supporting a  
30 second piece of siding 4 adjacent to the first piece of siding 2 when the clamp assembly 20 is coupled to the first piece of siding 2. The guide assembly 30 is slidably coupled to the clamp assembly 20 such that the support member 32 is positionable at a selectable distance from the clamp assembly 20. This permits a user to

establish a consistent desired amount of overlap between the first and second pieces of siding.

5 The clamp assembly 20 includes a stop plate 24 coupled to one of the jaws 22 for abutting the first piece of siding 2 to facilitate consistent placement of the first piece of siding 2 between the jaws 22.

10 The clamp assembly 20 has a locking assembly 26 for locking the jaws 22 in place as in vise grip pliers. The locking assembly 26 is adjustable for setting a distance between the jaws 22 when the clamp assembly 20 is in a closed position. The locking assembly 26 includes a screw member 28 for adjusting the distance between the jaws 22 when the clamp assembly 20 is in the closed position. In  
15 an embodiment, an annular member 42 is coupled to the clamp assembly 20. Thus, the clamp assembly 20 is designed for being hung from the annular member 42. The annular member 42 is preferably coupled to the screw member 28 for facilitating rotating the screw member 28 using tools designed for rotating eye hooks  
20 and the like.

To prevent marring of the exposed portions of the siding, at least one of the jaws 22 includes a protective covering material 44 for inhibiting marring of the siding.  
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The guide assembly 30 includes a collar member 31 coupled to the clamp assembly 20 and an extension member 36 slidably inserted through the collar member 31. The guide assembly 30 also includes a locking means 38 coupled to the collar member 31 for  
30 selectively locking the extension member 36 into a static position

relative to the collar member 31. The locking means 38 may be a thumbscrew or other conventional mechanism to provide frictional engagement preventing the extension member from moving within the collar 31 during use. Depressions or spaced holes may be  
5 provided in the extension member to permit insertion of a rigid member through the extension member to hold it in place.

The support member 32 includes a distal flange 33 extending from the bearing portion 34. Thus, the guide assembly 30 is  
10 designed for holding the second piece of siding 4 against a structure 6 while the bearing portion 34 supports the second piece of siding 4. The distal flange 33 has an outwardly flared edge 35 for facilitating insertion of the second piece of siding 4 between the support member 32 and the structure 6.

15 The jaws 22 include an upper jaw 21 and a lower jaw 23. The lower jaw 23 has a beveled distal edge 25 for facilitating insertion of the lower jaw 23 between the first piece of siding 2 and either the structure 6 or an earlier installed piece of siding.

20 The distal flange 33 also includes the protective covering material 44 on an interior face 37 of the distal flange 33 for inhibiting marring of the siding.

25 Development of the invention has shown that the jaws are well constructed when made of iron between 16 and 20 gauge with 18 providing the best combination of stiffness and minimized thickness to permit insertion of the lower jaw 23 under attached pieces of siding. For proper lateral support and easier alignment to  
30 keep the jaws 22 straightly attached, the closable jaws 22 each have

a width of between 2 and 6 inches with about 3 inches being preferred for providing sufficient stability and reduced manufacturing costs and optimal weight for the device.

5           In an embodiment, the extension member 36 is arcuate to hold the support member 32 closer to the structure to inhibit formation of gaps between the support member and the structure or siding. Similarly, a conduit 52 extending through the collar 31 receives the extension member 36. In production the conduit may be angled  
10 relative to the plane of the upper jaw to which it is typically attached. It is preferred that the conduit 52 is angled relative to the clamp assembly 20 to direct the support member towards the structure during use instead of away from the structure. Thus, the collar is designed for preventing gaps from forming between the  
15 support member and an upper portion of the first piece of siding.

          The clamp assembly 20 includes a handle portion 66. The handle portion 66 extends away from the closable jaws 22 at an angle between about 35 and 50 degrees for facilitating grasping of  
20 the handle portion 66 during use. The angle is also related to the amount of torsion applied to the lower jaw during use as a rearward portion of the lower jaw does not abut the siding when the jaws clamp onto the siding. An angle of about 40 degrees, particularly in combination with either 16 or 18 gauge iron jaws, provides good  
25 results.

          In use, a first piece of siding is applied to a structure. The siding installation tool is clamped onto the first piece of siding. The stop plate should be positioned firmly against the lower edge  
30 of the first piece of siding. Either before or after clamping to the



first piece of siding, the guide assembly of the siding installation tool is adjusted to extend the desired distance from a clamp assembly of the siding installation tool. Thus, the support member is positioned to permit insertion of a second piece of siding  
5 between the guide assembly and the upper portion of the first piece of siding to provide the desired overlap. The second piece of siding is inserted into and supported by the support member and may be attached to the structure. The process is then repeated moving up the outer face of the structure.

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It is particularly useful to employ two siding installation tools that can each be attached to the first piece of siding sufficiently spaced apart to hold the second piece of siding in a stable position. Thus, a single person can apply the siding  
15 installation tools, position the second piece of siding, and attach the second piece of siding.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the  
20 invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by  
25 the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous  
modifications and changes will readily occur to those skilled in the  
30 art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable

modifications and equivalents may be resorted to, falling within the scope of the invention.